6-2012

Toward a publics-driven, emotion-based conceptualization in crisis communication: Unearthing dominant emotions in multi-staged testing of the Integrated Crisis Mapping (ICM) Model

Yan JIN
Virginia Commonwealth University

Augustine PANG
Singapore Management University, augustine@smu.edu.sg

Glen T. CAMERON
University of Missouri

DOI: https://doi.org/10.1080/1062726X.2012.676747

Published in Journal of Public Relations Research,
Vol 24, Issue 3, June 2012, Pages 266–298
DOI 10.1080/1062726X.2012.676747
Accepted version

Toward a Publics-Driven, Emotion-Based Conceptualization in Crisis Communication: Unearthing Dominant Emotions in Multi-Staged Testing of the Integrated Crisis Mapping (ICM) Model

Yan Jin
Virginia Commonwealth University
Augustine Pang
Nanyang Technological University, Singapore
Glen T. Cameron
Missouri School of Journalism

To better understand not only the minds, but also the hearts of key publics, we have developed a more systemic approach to understand the responses of audiences in crisis situations. The Integrated Crisis Mapping (ICM) model is based on a publics-based, emotion-driven perspective where the publics' responses to different crises are mapped on 2 continua, the organization's engagement in the crisis and primary publics' coping strategy. This multistage testing found evidence that anxiety was the default emotion that publics felt in crises. The subsequent emotions felt by the publics varied in different quadrants involving different crisis types. As far as coping strategies were concerned, conative coping was more evident than cognitive coping across the 4 quadrants. Evidence also suggested strong merit that conative coping was the external manifestation of the internal cognitive processing that had taken place. Cognitive coping was thus the antecedent of conative coping. Although both the publics and the organizations agreed that the crises were relevant to the organizations' goals, they differed on who should assume more responsibility. The findings, although still very much exploratory, suggest theoretical rigor in the model, with room for further refinements to generate what Yin (2003) termed ''analytic generalization'' (p. 33) for the ICM model.

In discussing strategies for effective public relations, Broom (2009) differentiated two types of strategies, action strategies and communication strategies, to help organizations determine ''what to do'' and ''what to say'' (p. 307). Corresponding to Broom's argument that communication strategy decision making involves how to propose and implement the content and the delivery channel of a given message, crisis communication strategies are composed of crisis response form and crisis response content (Coombs, 2006a). Coombs (2006a) argued that form

Correspondence should be sent to Yan Jin, Virginia Commonwealth University, School of Mass Communications, 901 W. Main Street, Richmond, VA 23284. E-mail: yjin@vcu.edu

indicates what should be done, and content addresses what is actually said in the messages. The mainstream of crisis research has focused on crisis response content and how to appropriately match the crisis communication strategy content with different crisis situations.

Consequently, how to shape the appropriate communication strategies in response to a crisis is critical for the organization or public relations practitioner. Given that the goals of crisis communication, defined as the ''ongoing dialogue between the organization and its publics'' prior to, during, and after the crisis (Fearn-Banks, 2002, p. 2) were to restore organizational normalcy, influence public perception, and regain and repair image and reputation, strategies used should be ''designed to minimize damage to the image of the organization'' (p. 2). Strategies, argued Massey (2001), were ''message repertoires that are designed to repair the organization's image by influencing stakeholder perceptions'' (p. 155). Ray (1999) argued that strategies establish and enact ''control (at least in its appearance) in the face of high uncertainty'' (p. 19). Lukaszweski (1997) argued that the strategic management of message response in crisis communication is a ''fundamental communication principle'' (p. 8). Designing sound strategic communication messages to minimize damage to the image of the organization has been described as ''management at its zenith'' (Stocker, 1997, p. 203).

Although most of these strategies should be direct responses to the crisis, Ray (1999) argued that strategies could either; (a) deny the crisis exists; (b) provide ''partial, inaccurate, or delayed information'' (p. 20); or (c) maintain an open communication channels with constituents.

CURRENT SITUATION-BASED CONCEPTUALIZATION OF CRISIS RESPONSE

Arguably, the two dominant theories on crisis strategies, Benoit's Image Repair theory (Benoit & Pang, 2008), and Coombs' Situational Crisis Communication theory (Coombs, 2006b, 2007), are designed to understand what strategies are relevant to use under what circumstances. These often stem from a situation-based response to crisis. The image repair theory is appropriate to be used when the situation leads to a loss of face. When face is threatened, face works is used to repair image, argued Benoit and Pang. This usually occurs when the accused is believed to have committed an offensive act by its salient audience. Face, image, and reputation are extremely important because, as a society, Americans pride themselves on and value those who enact tolerance and sensitivity to the feelings and traditions of others (Benoit, 2004). One facet of Coombs' theory is that it is positioned according to the situation based on the organization's locus of control. On one hand, when the organization is deemed to have strong personal control over the crisis, more accommodative strategies like full apology are recommended for use. On the other hand, when the organization has weak control over the crisis, more defensive strategies like *attack* and *denial* are recommended.

INTEGRATED CRISIS MAPPING MODEL: CONCEPTUALIZING EMOTIONS IN CRISIS RESPONSES

Although these situation-based crisis responses serve as vital roadmaps to respond to crisis situations, it is argued that a more systemic approach would be to shape crisis responses from an emotion-based perspective: to understand what emotional upheavals the publics involved in the crisis are likely to experience so that strategies can be streamlined to address their specific

needs. Studies argued that the perception of a crisis, particularly from a given public, is not strictly a function of an environmental stimulus itself, but involves an interpretation of the stimulus (Carver & Blaney, 1977). Emotion is argued to be a critical stimulus. Lazarus (1991) defined emotion as ''organized cognitive–motivational–relational configurations whose status changes with changes in the person–environment relationship as this is perceived and evaluated (appraisal)'' (p. 38). In a crisis, emotions are one of the anchors of the publics' interpretation of the unfolding and evolving events.

Jin, Pang, and Cameron (2007) have developed a new approach, called the Integrated Crisis Mapping model (ICM), aimed at understanding the diverse and varied emotions likely to be experienced by key stakeholders. Dominant emotions in the ICM model, developed from integrating works from psychology and crises literature, are extrapolated on two continua. On the X-axis is the publics' coping strategy and on the Y-axis is the level of organizational engagement. Different types of crises, drawn from the crisis literature, are mapped into each of the four quadrants, with the dominant and secondary emotions posited.

To test the theoretical robustness and ecological validity of the ICM model, this study examines 14 crises posited in the four quadrants. These cases are studied for their instrumental, rather than intrinsic, values. In instrumental case studies, Stake (1998) argued that the cases are examined to provide ''insight into an issue or refinement of theory'' (p. 88). Data for the 14 crises came from content analyses of the population of stories published in the five largest circulating and widely influential national newspapers in the United States. To ensure that media coverage reflects organizational perspectives, the respective organizations' Web sites were accessed to analyze their official announcements through press releases. However, as such information was not available in all of the cases, we decided to standardize procedures and analyzed only media coverage for more comparable analyses.

This study is significant on four fronts. First, this represents the authors' attempt to understand how an organization and its primary public appraise a crisis; second, how different organizational engagement levels and public coping strategies can lead to different positioning on the crisis map driven by the primary emotion felt by the publics. Third, how different crisis mapping can impact organizational response. Fourth, and more significantly, this represents our program of research in developing a new theoretical framework founded on a publics-driven, emotion-based conceptualization in crisis communication. We believe that understanding the role of emotions in crisis should be the next frontier of crisis research (Jin & Pang, 2010). We begin this process by studying real life phenomena. Saunders (2004) argued that applying theory to real life situations is ''useful towards theory building'' because such situations ''provide observations grounded in actual organizational efforts aimed at solving actual organizational problems'' (p. 140). Fourteen cases were explored in order to construct a more robust study (Yin, 1993).

This article represents the culmination of multistage empirical tests, spread over 4 years, to test the theoretical and practical rigor of the ICM model. Specifically, it consolidates the results of the dominant emotions unearthed and coping strategies of the publics. We are excited to understand how well the hypotheses posited in the model hold up, and what subsequent refinements need to be made to stand the scrutiny of scholarship as well as its relevance to practitioners. Through the building of this model, it is our goal to advance current understanding in crisis communication and offers practical insights on how one can understand, with greater preciseness, the emotional upheavals primary publics are likely to experience so that one can shape the appropriate crisis response to manage the crisis with optimal effectiveness. Managing the

needs and emotions of the primary publics, or ''victims'' in Ogrizek and Guillery's (1999) terminology, has become the ''central challenge'' in crisis communication (Filizzola & Lopez, 1995, cited in Ogrizek and Guillery, 1999, p. 60; Coombs, 2006b). If emotions do, indeed, affect attitude and behavior (Turner, 2007), then understanding emotions would give practitioners a preview of the likely behavior publics may exhibit so that strategies can be shaped to meet such reactions.

THEORETICAL FRAMEWORK

Thus, Jin, Pang, and Cameron's (2007) ICM model (see Figure 1) is aimed at unearthing the diverse and varied emotions likely to be experienced by key stakeholders.

Identifying Primary Publics in Crises

Publics are a ''group of people who face a common issue'' (Gonzelez-Herrero & Pratt, 1996, p. 84). Different scholars have different terms for it. Ulmer, Sellnow and Seeger (2007) referred to them as *stakeholders*. Benoit and Pang (2008) referred to them as *audiences*, and Fearn-Banks (2001) used *the publics* and *stakeholders* interchangeably. This interchangeable definition (Rawlins, 2006) is the approach we adopt here. Benoit and Pang (2008) argued that identification of key publics is important because different audiences have ''diverse interests, concerns, and goals'' (p. 247). Rawlins (2006) argued that there are several ways to prioritize publics. He suggested four: (a) identifying them according to their relationship to the organization; (b)

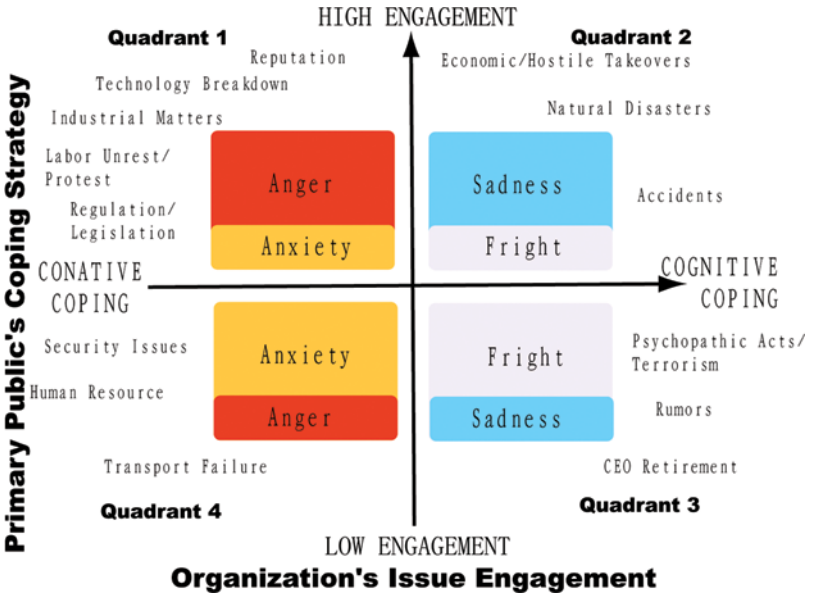

FIGURE 1 Integrated Crisis Mapping (ICM) model (Jin, Pang, & Cameron, 2007). (Figure available in color online.)

prioritizing them according to their attributes; (c) prioritizing them according to their relationship to the crisis situation; and (d) prioritizing them according to the communication strategy. Ulmer, Sellnow and Seeger (2007) offered a subtly different perspective. They argued that primary publics are groups of people identified by organizations as ''most important to their success'' (p. 37) and secondary stakeholders ''do not play an active role in the day-to-day activities'' (p. 37) of the organization. The authors argued that in determining who their primary publics are, organizations should delineate which of their multiple audiences they hold regular communications with, and who do they deem critical in the organizations' strategic missions. Ulmer (2001) categorized publics in terms of their long-term influences. He regarded the primary public as the community where the organization is based, and the organization's employees. The customer and the media would be classified as secondary publics.

For our conceptualization, we propose that the primary publics comprise the following characteristics: (a) They are most affected by the crisis; (b) they have shared common interests; and (c) they have long-term interests and influences on the organization's reputation and operation.

Understanding Publics' Emotions

In seeking to understand publics' responses in crises, we draw insights from Lazarus' (1991) work. Lazarus proposed that there are two types of appraisals: primary vs. secondary. Primary appraisal addresses whether, and how, an encounter or situation is relevant to one's own well-being. Its components include goal relevance,[1] goal congruence or incongruence,[2] and the engagement of the party.[3] In the processing of emotion from a public's point of view, the central issue of the crisis is always goal relevance. Conceivably, the goal relevance from the perspectives of both the publics and the organization involved in the same crisis are likely to differ.

Lazarus (1991) argued that secondary appraisal refers to an evaluation of one's options and resources for coping with the situation and future prospects. This means that during crisis, the public has to explore whether action is required to manage it, and if so, what kind of action ought to be taken. The public can assume any of these three components proposed: (1) blame or credit;[4] (2) coping potential;[5] or (3) future expectancy.[6] In a crisis, blaming takes precedence over credits. The coping potential and future expectancy specify any given action the public or organization may assume to prevent harm and to help one manage the demands of the crisis, as well as to evaluate whether the strategy adopted is feasible and what possible outcomes can be expected.

---

[1]If an event is relevant to an individual's personal goals, an emotion is generated; if not, an emotion will not be generated (Lazarus, 1991).

[2]If the goal is congruent, the consequent event will be evaluated as positive. If the goal is incongruent, then negative emotions will be elicited (Lazarus, 1991).

[3]How much the other party (other individuals or agents) is contributing, responsible, and involved in the event (Lazarus, 1991).

[4]Accountability of what happened (Lazarus, 1991).

[5]Whether an individual chooses to be problem-focused or emotion-focused when it comes to how he or she copes with or adapt to the situation (Lazarus, 1991).

[6]Whether and how an individual expects himself or herself to respond to the situation (Lazarus, 1991).

In a crisis, Lazarus (1991) argued that there are predominantly six negative emotions (anger, fright, anxiety, guilt, shame, and sadness) based upon how the crisis is appraised by the public, driven by different core relational themes. As the crises examined here are those thrust on the publics (i.e., crises not caused by the publics), we argue that four of the six (anger, fright, anxiety, and sadness) would be dominant emotions experienced by the publics, with guilt and shame secondary or subsumed emotions.

Anger. The core relational theme underlying anger is a demanding offense against ''me'' and ''mine'' (Lazarus, 1991, p. 222). In a crisis, the primary publics tend to experience anger when faced with a demanding offense from the organization. The primary publics would engage in the following rationalization process First, the ego-involvements (such as esteem, moral values, and sense of well-being) of the publics are engaged to preserve or enhance their identities in the situation. Second, there is usually an issue of blaming. Specifically, the organization is invariably the object of blame for not controlling the crisis or preventing it from happening.

As far as coping strategy development and action tendency assessment are concerned, the primary public might potentially attack the organization. However, anger can disappear when the defense against the organization is successful. It will continue to fester when the primary publics' initial self-defense fails. Anger can be expressed indirectly in passively aggressive tactics that the organization would well seek to detect if it wants to identify the appropriate strategies to deal with such emotional outrage.

Fright. The core relational theme is facing uncertain and existential threat (Lazarus, 1991). In terms of the publics' appraisal process, they find the situation of dealing with the organization as relevant to their goals, yet incongruent. Organization-based identity issue or ego-involvement issue may or may not be relevant. Depending on the nature of the crisis, the publics may blame the organization for how they feel.

As far as coping strategy is concerned, the publics may not be certain about how to cope with the loss, as well as how the organization may manage the situation. Depending on their abilities based on resource and power, less influential publics may choose avoidance or escape from the crisis as a possible recourse (action tendency).

Anxiety. This stems from the core relational theme of facing an immediate, concrete, and overwhelming danger (Lazarus, 1991). The publics may feel overwhelmed by the crisis and look for immediate solutions. Accordingly, the publics may go through the following appraisal process: They may assess the situation as relevant but not congruent with their survival goals. Their ego-involvements are evidenced in their efforts to protect their own ego-identities against the organization that they perceive to be the direct source of existential threat. Additionally, they may blame the organization for how they feel. Given the uncertainty of how to cope with the situation and how the organization may react, the publics may attempt to avoid and escape from the situation. Noticeably, the action tendencies of publics under fright and anxiety may overlap. This may give crisis managers sufficient consolidation of resources to effectively deal with the publics under these situations.

Sadness. Experiencing irrevocable loss is the core relational theme here (Lazarus, 1991), where the publics suffer from tangible or intangible loss or both. Their survival goals are threatened and the loss of ego-involvements may lead the publics in desperate need for relief and comfort. If they perceive that the loss can be restored or compensated for, this sadness may fade

and be replaced by hope. For successful crisis management, the organization may consider creating a favorable expectation by associating their efforts with hope while disassociating the situation with hopelessness and depression. The action tendency of the publics depends on what measures the organization takes.

Based on these emotions, we posit that the primary publics are likely to experience two levels of emotions. The primary level emotion is the one the publics experience at the first, or immediate, instance. The secondary level emotion is the one the publics experience in subsequent instances and contingent upon the organization's responses to the crisis. The secondary level emotion may be transferred from the dominant emotion or coexist with the primary level emotion.

Operationalization of the ICM Model

As Figure 1 illustrates, the ICM model is premised on a crisis matrix based on two axes. On the X-axis is the publics' coping strategy. Adapting from Lazarus' (1991) cognitive appraisal theory in emotion research, we argue that there are two types of coping: (a) problem-focused coping, which involves changing the actual relationship between the publics and the organization through actual measures and steps taken; and (b) cognitive-focused coping, which involves changing only the way in which the relationship is interpreted by the publics. During the coping process, the publics can alter or revise their interpretations based on the exigencies of the situation. For instance, an accident on the organization's premises necessitates high engagement from the organization. The publics may engage in cognitive coping and may feel sad on the first and immediate instance, which we describe as the primary-level dominant emotion. This may lead to a secondary-level response, which may be fright, when the circumstances leading to the accident are communicated or satisfactorily explained. On the Y-axis of the ICM model is the level of organizational engagement by the organization, ranging from high to low. Organization engagement is operationalized as a combination of the relevance between what had happened in the crisis and the organizational goal in operational and reputational success, based on Lazarus' primary appraisal propositions, as well as the organization's responsibility of the crisis, based on Coombs' Situational Crisis Communication Theory (Coombs, 2007). Jin et al. (2007) defined high organizational engagement as intense, consolidated, and sustained, with priority given in allocation of resources to deal with the crisis. On the contrary, low organizational engagement means the organization devotes comparatively less resources, effort, and energy to deal with the crisis, either because the organization argues there is little it can do or because the organization argues it did not cause the crisis and seeks to call on external help, like a regulatory agency, to help it resolve the crisis. For instance, an organization whose operations are affected by tightening of financial policies and credit may argue that there is little it can do, and thus may be described as lowly engaged as it does not pour in resources to deal with the problem. Instead, it may call on regulatory authorities to provide more funding and create more opportunities for industries to cope.

In each quadrant are categorizations of crisis types, conceptualized based on three criteria: 1) Internal-external; 2) Personal-public; and 3) Unnatural-natural. An external-public-natural crisis, like economic downturn, natural disaster, and accident, would likely necessitate higher level of engagement from the organization. For instance, the 2005 Tsunami disaster that swept across most parts of Asia is one no government could plan for. Coombs (1998) categorized

these events as external locus of control and weak personal responsibility on the organization's part. At the same time, some variations of catastrophe, involving internal-public-natural or unnatural, like labor unrest, and loss of reputation as a result of mismanagement, require high organizational engagement as well. While serious, some internal-personal-unnatural (i.e., man-made) crisis, like human resource problem involving employees, or psychopathic acts, necessitate relatively less intense organizational engagement, particularly when the organization did not cause these problems to arise.

Emotions and coping strategy. The two axes further form four quadrants in the crisis matrix. In each of the quadrants is the dominant emotion, based on the confluence and interactions of the publics' coping strategy as well as organizational engagement.

Quadrant 1: High engagement/Conative coping. Anger may be fueled when the publics hold the organization responsible. On the secondary level, the publics may feel anxious when they deem the organization as not doing enough. Conative coping strategy is driven by action tendency, the feeling that the publics can, and must, do something about the situation.

Quadrant 2: High engagement/Cognitive coping. The primary level emotion is sadness; and the secondary level emotion is fright. These are crises that give rise to emotions that the primary publics could only comprehend at the cognitive level. With further comprehension based on coping strategy, it may lead to suppressed emotions.

Quadrant 3: Low engagement/Cognitive coping. When the primary publics realize that there is little the organization can do, or the organization is devoting relatively less resources to the crisis when it should be doing more, the emotion of fright is experienced. Fright may give way to sadness, a further manifestation of the helplessness of the situation.

Quadrant 4: Low engagement/Conative coping. Anxiety is caused by the perception of the organization's low engagement and possible inertia. On the immediate level, the publics may feel anxious because they feel the organization is not doing enough. This may give rise to anger, and anger may lead them to take matters in their own hands.

Based on these descriptions, we seek to understand through the 14 cases:

RQ1: What are the primary emotions displayed by the primary publics, as evident in the news coverage?
RQ2: What is the extent of the organizations' engagements in the crises, as evident in the news coverage?

According to Lazarus (1991), after the evaluation of one's options and resources for coping with the situation, decision on future prospects needs to be made on whether action is required, and if so, what kind of action ought to be taken. In a crisis situation, a natural reaction would be for the publics to blame the organization. The coping potential, and future expectancy, specify any given action the publics may take to manage the demands of the situation. Thus, we seek to examine,

RQ3: What coping strategies are adopted by the primary publics, as evident in the news coverage?

In addition, we are interested in exploring whether there is any gap between the publics and organizations' perceptions of organization engagement and the publics' coping strategy, as

adjusting crisis response according to publics' crisis assessment is pivotal for crisis managers in a crisis. Therefore:

RQ4: What, if any, is the difference in perception of the degree in organization engagement between the organization and its primary publics?

RQ5: What, if any, is the difference in perception of the degree of the publics' coping strategy between the organization and its publics?

METHOD

We attempt to understand the veracity and rigor of the ICM model by studying real-life cases. Case studies allow the researcher to delve into and explain the uniqueness and complexity of organizational processes and to capture the essential processes of decision-making, implementation and change (Gummesson, 2000). The purpose of case studies is to empirically investigate a ''contemporary phenomenon within its real-life context'' and address a ''situation in which the boundaries between phenomenon and context are not clearly evident'' (Yin, 1993, p. 59). In this study, we adopt a multiple case study design with the primary interest of understanding how the ICM model works. The cases are thus studied for their instrumental, rather than intrinsic, values (Stake, 1998). Although the cases are analyzed in detail and contexts explored, these play supporting roles to the researchers' objectives, which are to facilitate understanding of how the cases inform the building of the model. Yin (1993) argued that this is an appropriate initial attempt at theory testing, with the aim of building ''analytic generalizations'' (Yin, 2003, p. 33).

Sample

Fourteen crises in the United States are content analyzed. These cases were selected based on the opinions and suggestions of a group of public relations practitioners and educators to represent the crisis types posited in the four quadrants.[7] This method has been found to be a viable way of identifying the appropriate crises to analyze (see Shin, Cheng, Jin, & Cameron, 2005).

Data for content analyses come from the population of stories published on the cases in the largest circulating and widely influential national newspapers in the United States, namely *USA Today, Wall Street Journal, New York Times, Los Angeles Times*, and *Washington Post* (Audit Bureau of Circulations, 2006; Viguerie & Franke, 2004). News stories in the five major newspapers ($N = 328$) were uploaded from Lexis-Nexis by typing in the key words of the organization and the crisis (see Table 1 and Appendix A for the case details and selection process; see Appendix B for the primary publics identified in stories by different cases). News stories were excluded if (a) there was no comment made by a spokesperson from the respective organization or official from the organization or no mention of any official communication from the organization or (b) the stories were in the same publication or there was no mention of the crisis.

[7]A panel of case discussion and brainstorming was constructed, composed of three PR educators, two crisis managers, and two PR graduate students. The ICM model was introduced and explained. Interactive discussions were conducted to generate proper case examples for each mapped crisis types, based on the panel members' professional experience and intuitive insights based on crisis management daily practice.

TABLE 1
Crisis Case and Newspaper Story Summary by Integrated Crisis Mapping Quadrants

Quadrant 1	*Quadrant 2*
Reputation: Hewlett Packard case ($N = 82$)	Economic/hostile takeovers: US Airways' takeover bid of Delta Air Lines case ($N = 20$)
Technological breakdown: Dell's battery recall case ($N = 20$)	Natural Disasters: Ameren dealing with power outage case ($N = 14$)
Industrial matters: Sago mine case ($N = 27$)	Accidents: BP refinery blast case ($N = 18$)
Labor unrest/protest: Ford job cutback case ($N = 69$)	
Regulation/legislation: CIA Military Commissions Act case ($N = 61$)	
Quadrant 4	*Quadrant 3*
Security issues: T. J. MAXX case ($N = 25$)	Psychopathic acts/terrorism: Virginia Tech shooting case ($N = 16$)
Human resource: Wal-Mart case ($N = 31$)	Rumors: Rumors of Gonzales resignation case ($N = 18$)
Transport failure: Amtrak case ($N = 13$)	CEO retirement: Merck CEO retirement case ($N = 10$)

Coders and Training

Four coders, all graduate students and familiar with the content analysis method, conducted the coding at different stages of the tests. Sets of two coders were responsible for coding specific quadrants. With the help of a codebook, the coders were given detailed instruction and description of the various categories used. Practice sessions were held using samples of stories to familiarize with the coding instruments. The coders worked independently and were not allowed to consult with one another during the process. The intercoder reliability achieved an item-average of .83 using Scott's Pi.

Coding Instrument

The unit of analysis is defined as a news story. This includes stories by staff and stories adapted from wire sources. The 328 stories were coded for the following variables.

Publics' emotion expressed (from a list of sadness, fright, anger and sadness). Primary emotion and secondary emotion were measured on a 7-point Likert-like scale, where 1 was *not evident (no trace of display of emotion)*, and 7 was *very evident (vivid and graphic description of facial expression of the publics and direct quote on the emotion expressed)*, scoring the highest and second highest among other negative emotions, respectively. An *other emotion(s)* option (other than the primary four negative emotions) was also included and asked to be specified by the coders. For instance, in the HP case, when a shareholder commented, ''It's an inopportune time for corporate governance issues like this to crop up because it takes away from the turnaround that's going on.... As a shareholder, I'm not happy about that'' (''HP won't renominate director, citing leaks,'' 2006), we coded that as anger. Or, when Ford offered buyouts to factory workers and the union president responded by saying that members were

''stepping up to make hard choices under difficult circumstances'' (O'Dell, 2006), we coded that as *anxiety*.

We also coded the scales of the respective emotions according to the intensity evident in the news coverage. Using the Sago Mining case in quadrant 1 as an example, we offer some sampler statements on how we code emotions on the Likert scale. When it was reported that the daughter of one of the miners who died had gone to identify the body, her seemingly sad response after seeing the note written by the miners before they died appeared to be muted (Barringer & Goodman, 2006), we coded it as sadness and 1 on the Likert scale, which meant showing no trace of emotion. When company officials informed family members that only one body was found while others were not, and ''people wailed in anguish'' (Dao & Barringer, 2006, p. 1), we coded it as sadness and 4 on the Likert scale, which meant ''we are affected'' display of emotion. When family members questioned the amount of time the company took to send rescue teams into the mine and they felt there was inertia and the sentiment was that ''everyone was waiting for everyone else to make a move'' (Barringer & Goodman, 2006, p. 1), we coded it as anxiety and 3 on the Likert scale, which meant that the emotion had occurred, with no further description of the emotion. When family members found out that the miners had tried to find their way out of the mines before they eventually died, one family member showed how exasperated he was when he said, '''This ain't hearsay. This came from Hatfield's[(the CEO of the International Coal Group, the mine's owner] mouth'' (Harris, 2006, p. 18), we coded it as anxiety and 6 on the Likert scale.

Publics' coping strategy. First, publics' willingness to change their opinion of the crisis (cognitive coping) was measured on a 7-point Likert-like scale, where 1 was *not evident*. Second, a primary public's willingness to take actions to address the crisis (conative coping) was measured on a 7-point Likert-like scale, where 1 was *not evident* and 7 was *very evident*. The same set of coping strategy variables were also measured from the organization's perspective as evidence in the news stories. For instance, in the HP case, when a shareholder who owned 200 HP shares filed a proposal to separate the roles of chairman and CEO so that only an independent director, not a company executive, could be chairman (Granelli, 2006), we coded it as conative coping because it meant the primary public in the story was actively taking action to deal with the situation.

Organizational engagement. First, organization's appraisal of the relevance between organizational goal and the crisis was measured on a 7-point Likert-like scale, where 1 was *very low (the crisis has nothing to do with the organization's goals, and is not likely at all to put the organization operation and reputation in danger)* and 7 was *very high (the crisis hits the organization's goals and creates devastating damage)*. Second, organization's appraisal of its responsibility of the crisis was measured on a 7-point Likert-like scale, where 1 was *very low*, and 7 was *very high*. The same set of engagement variables were also measured from a primary public's perspective as evidenced in the news stories. For instance, in the HP case, when Mark Hurd, the new CEO who took over Patricia Dunn, told employees in an e-mail that ''we will continue to gather and review all the relevant facts. I can assure you we will get to the bottom of this and take appropriate action'' (''HP Exec Seeks to Mend Fences,'' 2006), we coded it as the organization highly involved, demonstrating the organization's willingness to pour all its resources to managing the crisis.

For each of the aforementioned variables, the number 99 was used if that variable or related issue was not addressed in the story.

RESULTS

Primary Emotions

RQ1 examined the primary emotions displayed by the publics, as is evident in the news coverage. For easier reading of the results, please see Table 2 for the summary of key findings by quadrants and crisis cases and also Figure 2 for the illustration of the revised primary and secondary emotion combinations in the four quadrants.

Organizational Engagement

RQ2 examined the extent of organizations' engagement in the crises, as is evident in the news coverage (see Table 3 for the summary of key findings by quadrants and crisis cases).

Quadrant 1. For the HP case, the organization tended to perceive the crisis as related to the organization's goals, but not closely related to the operation and/or reputation of the organization ($M = 3.62$, $SD = .93$); in terms of crisis responsibility, evidence showed the organization veered from assuming traces of responsibility to staying neutral ($M = 3.75$, $SD = 1.09$). For the Dell case, a similar pattern occurs: The organization tended to perceive that the crisis was related to the organization's goals, but not closely related to the operation and/or reputation of the organization ($M = 3.80$, $SD = 1.06$); in terms of crisis responsibility, it veered from assuming traces of responsibility to staying neutral ($M = 4.10$, $SD = 1.83$). For the Sago Mining case, the organization tended to perceive the crisis as somewhat closely related to the organization's goals but not essentially relevant to the operation and/or reputation of the organization ($M = 4.47$, $SD = .84$); in terms of crisis responsibility, it veered from assuming traces of responsibility to staying neutral ($M = 3.64$, $SD = 1.09$). For the Ford case, the organization tended to perceive the crisis as somewhat closely related to the organization's goals but not essentially relevant to the operation and/or reputation of the organization ($M = 5.28$, $SD = .83$); in terms of crisis responsibility, it veered from assuming traces of responsibility to staying neutral ($M = 4.30$, $SD = .73$). For the immigration case, the organization tended to perceive the crisis as related to the organization's goals but not closely related to the operation and/or reputation of the organization ($M = 4.28$, $SD = .70$); in terms of crisis responsibility, it veered from assuming traces of responsibility to staying neutral ($M = 3.90$, $SD = .44$).

Quadrant 2. For the BP case, the organization tended to perceive the crisis as somewhat closely related to the organization's goals, but not essentially related to the operation and reputation of the organization ($M = 4.61$, $SD = .78$); although it admitted responsibility for the crisis ($M = 5.11$, $SD = 1.02$). For the US Airways' takeover bid of Delta Air Lines case, the organization also tended to perceive the crisis as related to the organization's goals, but not closely related to the operation and/or reputation of the organization ($M = 4.35$, $SD = .59$). In terms of crisis responsibility, it remained neutral ($M = 4.00$, $SD = .00$). For the Ameren's power outage case, the organization perceived the crisis as somewhat closely related with the organization's goals but not essentially relevant to the operation and/or reputation of the organization ($M = 5.09$, $SD = .83$); in terms of crisis responsibility, it remained neutral ($M = 4.00$, $SD = .39$).

TABLE 2
Primary Emotions Displayed by Integrated Crisis Mapping Quadrants

Quadrant 1	*Quadrant 2*
Reputation: HP case Primary emotion: Anger ($M = 2.09$, $SD = 1.40$) Secondary emotion: Anxiety ($M = 2.09$, $SD = 1.30$) Other emotions: Sadness ($M = 1.10$, $SD = .53$) Fright ($M = 1.10$, $SD = .45$)	Economic/Hostile takeovers: US Airways' takeover case Primary emotion: Anxiety ($M = 2.76$, $SD = 1.25$) Secondary emotion: Anger ($M = 1.94$, $SD = 1.20$) Other emotions: Fright ($M = 1.35$, $SD = .00$)
Technological breakdown: Dell case Primary emotion: Anger ($M = 3.17$, $SD = 2.08$) Secondary emotion: Anxiety ($M = 2.50$, $SD = 1.68$) Other emotions: Sadness ($M = 1.67$, $SD = 1.23$) Fright ($M = 1.00$, $SD = .00$)	Natural disasters: Ameren case Primary emotion: Anxiety ($M = 3.67$, $SD = .82$) Secondary emotion: Sadness ($M = 2.33$, $SD = 1.51$) Other emotions: Anger ($M = 2.17$, $SD = 1.84$) Fright ($M = 1.83$, $SD = 1.33$)
Industrial matters: Sago mine case Primary emotion: Anxiety ($M = 4.48$, $SD = 2.06$) Secondary emotion: Sadness ($M = 3.20$, $SD = 2.00$) Other emotions: Anger ($M = 2.96$, $SD = 2.01$) Fright ($M = 2.92$, $SD = 1.80$)	Accidents: BP refinery blast case (N = 18) Primary emotion: Anxiety ($M = 3.00$, $SD = 1.52$) Secondary emotion: Fright ($M = 2.00$, $SD = 1.57$) Other emotions: Sadness ($M = 1.43$, $SD = .85$) Anger ($M = 1.36$, $SD = .93$)
Labor unrest/Protest: Ford case Primary emotion: Anxiety ($M = 4.17$, $SD = 1.49$) Secondary emotion: Sadness ($M = 2.63$, $SD = 1.72$) Other emotions: Anger ($M = 1.69$, $SD = 1.08$) Fright ($M = 2.23$, $SD = 1.59$)	
Regulation/Legislation: CIA case Primary emotion: Anxiety ($M = 2.38$, $SD = 1.42$) Secondary emotion: Anger ($M = 2.02$, $SD = 1.47$) Other emotions: Sadness ($M = 1.04$, $SD = .29$) Fright ($M = 1.04$, $SD = .29$)	

Quadrant 4	*Quadrant 3*
Security issues: T. J. MAXX case Primary emotion: Anger ($M = 1.48$, $SD = 1.29$)	Psychopathic acts/Terrorism: Virginia Tech shooting case Primary emotion: Anxiety ($M = 3.88$, $SD = 2.17$)

(*Continued*)

TABLE 2
Continued

Quadrant 4	*Quadrant 3*
Secondary emotion: Sadness ($M = 1.42$, $SD = 1.31$) Other emotions: Anxiety ($M = 1.39$, $SD = 1.50$)	Secondary emotion: Fright ($M = 3.75$, $SD = 2.50$) Other emotions: Sadness ($M = 3.38$, $SD = 2.07$) Anger ($M = 2.75$, $SD = 1.67$)
Human resource: Wal-Mart case Primary emotion: Anxiety ($M = 1.72$, $SD = 1.99$) Secondary emotion: Sadness ($M = 1.52$, $SD = 1.09$) Other emotions: Anger ($M = 1.48$, $SD = 1.66$)	Rumors: Gonzales resignation case Emotions displayed: Anxiety ($M = 1.20$, $SD = .63$) Fright ($M = 1.20$, $SD = .63$) Anger ($M = 1.20$, $SD = .63$)
Transport failure: Amtrak case Primary emotion: Anxiety ($M = 2.85$, $SD = 2.88$) Secondary emotion: Anger ($M = 2.38$, $SD = 2.63$) Other emotions: Sadness ($M = 2.23$, $SD = 1.42$)	CEO retirement: Merck case No emotion displayed in the news analyzed

Quadrant 3. For Merck's CEO retirement case, the organization tended to perceive the crisis as related to the organization's goals but not closely related to the operation and/or reputation of the organization ($M = 4.00$, $SD = .82$); in terms of crisis responsibility, it remained neutral ($M = 3.90$, $SD = .99$). For the Virginia Tech shooting case, the organization

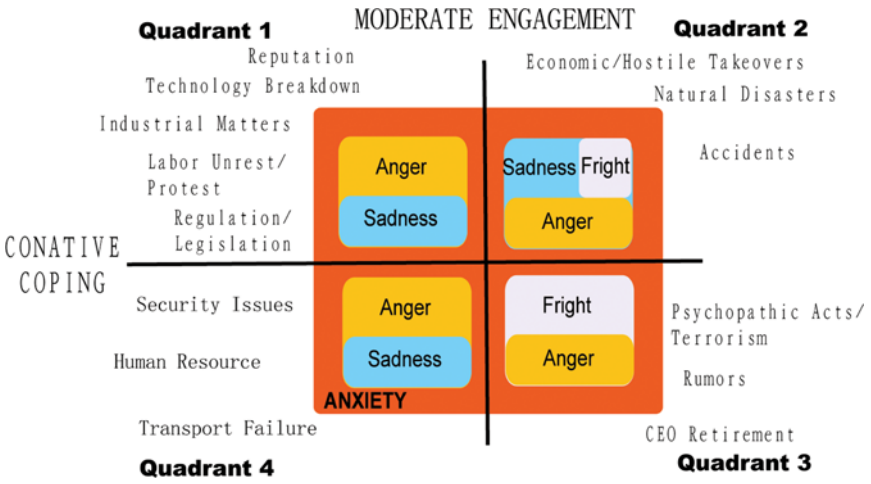

FIGURE 2 Revised Integrated Crisis Mapping (ICM) model. (Figure available in color online.)

TABLE 3
Primary Publics' Coping Strategy and Organizational Issue Engagement Level by Integrated Crisis Mapping Quadrants

Quadrant 1	*Quadrant 2*
Reputation: HP case • More conative coping ($M = 5.14$, $SD = 1.09$) than cognitive coping ($M = 4.53$, $SD = 1.19$)*** • Organization moderately engaged (Goal relevance: $M = 3.62$, $SD = .93$; Crisis responsibility: $M = 3.75$, $SD = 1.09$)	Economic/Hostile takeovers: US Airways' takeover case • More conative coping ($M = 4.94$, $SD = 1.20$) than cognitive coping ($M = 3.35$, $SD = 1.37$)** • Organization moderately engaged (Goal relevance: $M = 4.35$, $SD = .59$; Crisis responsibility: $M = 4.00$, $SD = .00$)
Technological breakdown: Dell case • No coping strategy preference • Organization moderately engaged (Goal relevance: $M = 3.80$, $SD = 1.06$; Crisis responsibility: $M = 4.10$, $SD = 1.83$)	Natural disasters: Ameren case • More conative coping ($M = 5.33$, $SD = 1.03$) than cognitive coping ($M = 4.33$, $SD = .82$)* • Organization moderately engaged (Goal relevance: $M = 5.09$, $SD = .83$; Crisis responsibility: $M = 4.00$, $SD = .39$)
Industrial matters: Sago Mine case • More conative coping ($M = 4.79$, $SD = .78$) than cognitive coping ($M = 3.96$, $SD = 1.33$)* • Organization moderately engaged (Goal relevance: $M = 4.47$, $SD = .84$; Crisis responsibility: $M = 3.64$, $SD = 1.09$)	Accidents: BP case • No coping strategy preference • Organization moderately engaged (Goal relevance: $M = 4.61$, $SD = .78$; Crisis responsibility: $M = 5.11$, $SD = 1.02$)
Labor unrest/Protest: Ford case • More conative coping ($M = 4.64$, $SD = .96$) than cognitive coping ($M = 4.27$, $SD = 1.21$)* • Organization moderately engaged (Goal relevance: $M = 5.28$, $SD = .83$; Crisis responsibility: $M = 4.30$, $SD = .73$)	
Regulation/Legislation: CIA case • More conative coping ($M = 5.40$, $SD = .65$) than cognitive coping ($M = 4.74$, $SD = 1.13$)*** • Organization moderately engaged (Goal relevance: $M = 4.28$, $SD = .70$; Crisis responsibility: $M = 3.90$, $SD = .44$)	

Quadrant 4	*Quadrant 3*
Security issues: T. J. MAXX case • More conative coping ($M = 5.59$, $SD = 2.28$) than cognitive coping ($M = 3.94$, $SD = 1.18$)$^{+}$ • Organization moderately engaged (Goal relevance: $M = 4.46$, $SD = 1.67$; Crisis responsibility: $M = 1.25$, $SD = 1.03$)	Psychopathic acts/Terrorism: Virginia Tech shooting case • No coping strategy preference • Organization moderately engaged (Goal relevance: $M = 4.31$, $SD = .60$; Crisis responsibility: $M = 3.56$, $SD = .73$)
Human resource: Wal-Mart case • No coping strategy preference) • Organization engaged (Goal relevance: $M = 5.94$, $SD = 1.48$; Crisis responsibility: $M = 5.59$, $SD = 1.42$	Rumors: Gonzales resignation case • No coping strategy preference • Organization moderately engaged (Goal relevance: $M = 2.89$, $SD = .68$; Crisis responsibility: $M = 2.39$, $SD = .50$)
Transport failure: Amtrak case • More cognitive coping ($M = 3.67$, $SD = 2.60$) than conative coping ($M = 3.11$, $SD = 2.57$)$^{+}$	CEO retirement: Merck case • No coping strategy preference

(*Continued*)

TABLE 3
Continued

Quadrant 4	*Quadrant 3*
• Organization moderately engaged (Goal relevance: $M = 5.33$, $SD = .71$; Crisis responsibility: $M = 3.44$, $SD = 2.19$)	• Organization moderately engaged (Goal relevance: $M = 4.00$, $SD = .82$; Crisis responsibility: $M = 3.90$, $SD = .99$)

Note. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$. $^{+}p < .10$.

tended to perceive the crisis as related to the organization's goals but not closely related to the operation and/or reputation of the organization ($M = 4.31$, $SD = .60$); in terms of crisis responsibility, it veered from assuming traces of responsibility to staying neutral ($M = 3.56$, $SD = .73$). For the Gonzalez case, the organization tended to perceive the crisis as indirectly related to the organization's goals, which harms the organization minimally ($M = 2.89$, $SD = .68$); in terms of crisis responsibility, it took minimum responsibility for the crisis ($M = 2.39$, $SD = .50$).

Quadrant 4. For the Amtrak case, the organization tended to perceive the crisis as somewhat closely related to the organization's goals, but not essentially related to the operation and reputation of the organization ($M = 5.33$, $SD = .71$); it was reluctant to admit its responsibility for the crisis ($M = 3.44$, $SD = 2.19$). For the T. J. MAXX case, the organization also tended to perceive the crisis as related to the organization's goals, but not closely related to the operation and/or reputation of the organization ($M = 4.46$, $SD = 1.67$); and it denied responsibility in the crisis ($M = 1.25$, $SD = 1.03$). For the Wal-Mart case, the organization perceived the crisis as somewhat closely related with the organization's goals, but not essentially relevant to the operation and/or reputation of the organization ($M = 5.94$, $SD = 1.48$); and it partially assumed responsibility ($M = 5.59$, $SD = 1.42$).

Based on the results, evidence suggests that even though organizations may be highly engaged in the crises, they were less likely to assume responsibility for the crises. Evidence suggests remaining neutral or veering from assuming responsibility appeared to be commonly practiced. Among the 14 cases, there was only one case where an organization admitted responsibility.

Primary Publics' Coping Strategies

RQ3 examined the primary publics' coping strategies, as evident in the news coverage (see Table 3 for the summary of key findings by quadrants and crisis cases).

Quadrant 1. For the HP case, the primary publics tended to use more conative coping ($M = 5.14$, $SD = 1.09$) than cognitive coping ($M = 4.53$, $SD = 1.19$; $t = 3.85$, $p < .001$). For the Dell case, there was no significant difference in the primary publics' coping strategy. For the Sago Mining case, the primary publics tended to use more conative coping ($M = 4.79$, $SD = .78$) than cognitive coping ($M = 3.96$, $SD = 1.33$; $t = 2.78$, $p < .05$). For the Ford case, the primary publics tended to use more conative coping ($M = 4.64$, $SD = .96$) than cognitive coping ($M = 4.27$,

$SD = 1.21$; $t = 2.43$, $p < .05$). For the CIA case, the primary publics tended to use more conative coping ($M = 5.40$, $SD = .65$) than cognitive coping ($M = 4.74$, $SD = 1.13$; $t = 4.70$, $p < .001$). Except for the case involving Dell, the primary publics in all the other cases were more willing to take actions to address the crisis, i.e., engage in conative coping.

Quadrant 2. For the US Airways' takeover bid of Delta Air Lines case, the primary publics tended to use more conative coping ($M = 4.94$, $SD = 1.20$) than cognitive coping ($M = 3.35$, $SD = 1.37$; $t = 3.70$, $p < .01$). For the Ameren's power outage case, the primary publics also tended to use more conative coping ($M = 5.33$, $SD = .1.03$) than cognitive coping ($M = 4.33$, $SD = .82$; $t = 2.74$, $p < .05$). For the BP case, there was no significant difference in the primary publics' coping strategy.

Quadrant 3. Across the cases in this quadrant, there was no significant difference in the primary publics' coping strategy.

Quadrant 4. For the Amtrak case, the primary publics tended to use more cognitive coping ($M = 3.67$, $SD = 2.60$) than conative coping ($M = 3.11$, $SD = 2.57$; $t = 1.89$, $p < .10$). For the T. J. MAXX case, the primary publics tended to use more conative coping ($M = 5.59$, $SD = 2.28$) than cognitive coping ($M = 3.94$, $SD = 1.18$; $t = 2.08$, $p < .10$). For the Wal-Mart case, there was no significant difference in the primary publics' coping strategy.

Accordingly, there was strong evidence of publics engaging in conative coping. Among the four quadrants examined, three of the quadrants showed evidence of conative coping and one showed no significant difference in coping strategies used.

Difference in Perception of Organization Engagement

RQ4 examined if there was any difference in perception in the degree in organization engagement in each of the crises between the organization and its primary publics (see Table 4 for the summary of key findings by quadrants and crisis cases).

Quadrant 1. For the HP case, the primary publics perceived the organization's goals were more relevant to the crisis ($M = 4.17$, $SD = 1.09$) than the organization perceived itself ($M = 3.63$, $SD = .99$; $t = 2.71$, $p < .05$). The primary publics also perceived the organization had higher crisis responsibility for the crisis ($M = 4.33$, $SD = .93$) than the organization appraised itself ($M = 3.70$, $SD = 1.09$; $t = 3.91$, $p < .001$). For the Sago Mining case, the primary publics perceived the organization's goals as more relevant to the crisis ($M = 5.60$, $SD = .70$) than the organization perceived itself ($M = 4.40$, $SD = .70$; $t = 3.34$, $p < .01$). The primary publics also perceived the organization had higher crisis responsibility for the crisis ($M = 4.55$, $SD = 1.22$) than the organization appraised itself ($M = 3.73$, $SD = .99$; $t = 2.81$, $p < .05$). For the Dell, Ford and the immigration cases, there was no significant difference in perception between the organization and the primary publics.

Quadrant 2. For the US Airways' takeover bid of Delta Air Lines case, the primary publics perceived the organization's goals as more relevant to the crisis ($M = 5.44$, $SD = .63$) than the organization perceived itself ($M = 4.25$, $SD = .58$; $t = 4.84$, $p < .001$), but there was no difference in how the organization and the primary publics perceived the organizational crisis

TABLE 4
Public–Organization Crisis Response Perception Gap by Integrated Crisis Mapping Quadrants

Quadrant 1

Reputation: HP case
- Public coping preference
  - Publics more willing to take cognitive coping than the organization**
  - Publics more willing to take conative coping than the organization**
- Organizational engagement
  - Publics perceive more organizational goal relevance than the organization*
  - Publics perceive more organizational crisis responsibility than the organization***

Technological Breakdown: Dell Case
- Public coping preference
  - Organization more willing to take conative coping than publics**
- Organizational engagement (n.s.)

Industrial matters: Sago Mine case
- Public coping preference (n.s.)
- Organizational engagement
  - Publics perceive more organizational goal relevance than the organization**
  - Publics perceive more organizational crisis responsibility than the organization*

Labor unrest/Protest: Ford case
- Public coping preference
  - Organization more willing to take conative coping than publics**
- Organizational engagement (n.s.)

Regulation/Legislation: CIA case
- Public coping preference
  - Publics more willing to take cognitive coping than the organization***
  - Publics more willing to take conative coping than the organization*
- Organizational engagement (ns)

Quadrant 2

Economic/Hostile takeovers: US Airways' takeover case
- Public coping preference
  - Publics more willing to take conative coping than the organization**
- Organizational engagement
  - Publics perceive more organizational goal relevance than the organization

Natural disasters: Ameren case
- Public coping preference (n.s.)
- Organizational engagement
  - Publics perceive more organizational crisis responsibility than the organization+

Accidents: BP case
- Public coping preference
  - Organization more willing to take conative coping than publics**
- Organizational engagement (n.s.)

Quadrant 4

Security issues: T. J. MAXX case
- Public coping preference
  - Publics more willing to take cognitive coping than the organization*
- Organizational engagement
  - Publics perceive more organizational goal relevance than the organization***

Quadrant 3

Psychopathic acts/Terrorism: Virginia Tech shooting case
- Public coping preference (ns)
- Organizational engagement (ns)

Rumors: Gonzales resignation case
- Public coping preference

(*Continued*)

TABLE 4
Continued

Quadrant 4	*Quadrant 3*
Human resource: Wal-Mart case • Public coping preference ○ Publics more willing to take cognitive coping than the organization* • Organizational engagement ○ Publics perceive more organizational crisis responsibility than the organization*	○ Publics more willing to take cognitive coping than the organization* • Organizational engagement ○ Publics perceive more organizational goal relevance than the organization** ○ Publics perceive more organizational crisis responsibility than the organization***
Transport failure: Amtrak case • Public coping preference (ns) • Organizational engagement ○ Publics perceive more organizational goal relevance than the organization+ ○ Publics perceive more organizational crisis responsibility than the organization**	CEO retirement: Merck case • Public coping preference (ns) • Organizational engagement (ns)

Note. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$. $^{+}p < .10$.

responsibility. For Ameren's handling of the power outage, there was no difference in how the organization and the primary publics perceived the goal relevance of the crisis to the organization; the primary publics seemed to perceive higher organizational crisis responsibility ($M = 4.75$, $SD = .50$) than the organization perceived itself ($M = 4.00$, $SD = .82$; $t = 3.00$, $p < .10$). For the BP case, there was no significant difference in the perception of the degree in organization's goal relevance and crisis responsibility.

Quadrant 3. For the Gonzalez case, the primary publics perceived the organization's goals as more relevant to the crisis ($M = 4.00$, $SD = .50$) than the organization perceived itself ($M = 2.67$, $SD = .50$; $t = 4.62$, $p < .01$). The primary publics also perceived the organization had higher crisis responsibility for the crisis ($M = 4.40$, $SD = .84$) than the organization appraised itself ($M = 2.30$, $SD = .48$; $t = 7.58$, $p < .001$). For the Merck CEO retirement and Virginia Tech shooting cases, there was no significant difference in the perception of the degree in organization's goal relevance and crisis responsibility in each of the crises between the organization and the primary publics.

Quadrant 4. For the Amtrak case, the primary publics perceived the organization's goals as more relevant to the crisis ($M = 6.14$, $SD = .69$) than the organization perceived itself ($M = 5.43$, $SD = .79$; $t = 1.99$, $p < .10$). The primary publics perceived higher organizational crisis responsibility ($M = 6.57$, $SD = .54$) than the organization perceived itself ($M = 2.86$, $SD = 2.12$; $t = 4.77$, $p < .01$). For the T. J. MAXX case, the primary publics perceived the organization's goals as more relevant to the crisis ($M = 6.22$, $SD = .73$) than the organization perceived itself ($M = 4.61$, $SD = 1.42$; $t = 5.50$, $p < .001$). There was no significant difference in the perception of the organization's crisis responsibility between the organization and the primary publics. For the Wal-Mart case, there was no significant difference in the perception of the organization's goal relevance in

crisis, and the primary publics perceived higher organizational crisis responsibility ($M = 6.64$, $SD = .50$) than the organization perceived itself ($M = 5.57$, $SD = 1.56$; $t = 2.79$, $p < .05$).

Based on the results, evidence suggests that organizations should assume higher responsibility for the crises. The difference was in the degree of how the publics felt. In quadrant one, for instance, there was strong evidence that the publics felt the organization should assume higher responsibility. In quadrants two, three, and four, the publics did not feel that as strongly.

Difference in Coping Strategy Perception

RQ5 examined if there was any difference in perception in the degree of the publics' coping strategy between the organization and the publics (see Table 4 for the summary of key findings by quadrants and crisis cases).

Quadrant 1. For the HP case, the primary publics were more willing to take cognitive coping ($M = 4.53$, $SD = 1.20$) than the organization ($M = 3.86$, $SD = 1.26$; $t = 3.13$, $p < .01$) perceived. The primary publics were also more willing to take conative coping ($M = 5.14$, $SD = 1.09$) than the organization ($M = 4.46$, $SD = 1.33$; $t = 3.44$, $p < .01$) perceived. The same pattern occurred in the immigration case leading to the Military Commissions Act 2006, where the primary publics were more willing to take cognitive coping ($M = 4.74$, $SD = 1.13$) than the organization ($M = 3.98$, $SD = .99$; $t = 4.07$, $p < .001$) perceived. The primary publics were also more willing to take conative coping ($M = 5.40$, $SD = .65$) than the organization ($M = 4.91$, $SD = 1.20$; $t = 2.49$, $p < .05$) perceived. It appears that the primary publics in these two cases were more active than the organizations in taking efforts to change opinions and the crisis situations. For the Dell case, there was no significant difference in the cognitive coping strategy between the primary publics and the organization ($t = 1.48$, ns). Interestingly, the organization was more willing to engage in conative coping ($M = 5.92$, $SD = .80$) than the primary publics ($M = 4.17$, $SD = 1.19$; $t = 3.78$, $p < .01$). For the Ford case, there was no significant difference in the cognitive coping strategy between the primary publics and the organization ($t = 1.44$, ns). Again, the organization was more willing to engage in conative coping ($M = 5.44$, $SD = .91$) than the primary publics ($M = 4.63$, $SD = .98$; $t = 3.66$, $p < .01$). It appears that the organizations in these two cases were more active than the primary publics in making efforts to deal with the crisis situations. For the Sago Mining case, there was no significant difference in the cognitive and conative coping strategies taken between the primary publics and the organization ($t = 1.48$, n.s.; $t = 1.00$, ns, respectively).

Quadrant 2. For the BP case, there was no significant difference in the cognitive coping strategy between the primary publics and the organization. Interestingly, the organization was more willing to engage in conative coping ($M = 5.57$, $SD = .51$) than the primary publics ($M = 4.86$, $SD = .86$; $t = 3.24$, $p < .01$). For the US Airways' takeover bid of Delta Air Lines case, there was no significant difference in the cognitive coping strategy between the primary publics and the organization, and the primary publics seemed to be more willing to engage in conative coping ($M = 4.94$, $SD = 1.20$) than the organization ($M = 4.41$, $SD = 1.23$; $t = 2.05$, $p < .10$). For the Ameren case, there was no significant difference in the cognitive and conative coping strategies between the primary publics and the organization.

Quadrant 3. For the Gonzalez case, the primary publics were more willing to engage in cognitive coping ($M = 4.10$, $SD = 1.10$) than the organization ($M = 3.00$, $SD = .00$; $t = 3.16$, $p < .05$). However, there is no significant difference in the conative strategy between the primary publics and the organization. For Merck CEO retirement and Virginia Tech shooting cases, there was no significant difference in the cognitive and conative coping strategies between the primary publics and the organization.

Quadrant 4. For the Amtrak case, there was no significant difference in the cognitive or conative coping strategies between the primary publics and the organization. For the T. J. MAXX case, there was no significant difference in the conative coping strategy between the primary publics and the organization, and the primary publics seemed to be more willing to engage in cognitive coping ($M = 3.72$, $SD = 2.30$) than the organization ($M = 1.89$, $SD = 1.71$) ($t = 3.53$, $p < .05$). For the Wal-Mart case, there was no significant difference in the conative coping strategy between the primary publics and the organization; the primary publics seemed to be more willing to engage in cognitive coping ($M = 6.23$, $SD = 1.36$) than the organization ($M = 5.69$, $SD = 1.03$) ($t = 2.21$, $p < .05$).

DISCUSSION

This process of testing the theoretical robustness and ecological validity of the ICM model through the multistage testing has yielded the following insights (see Figure 2).

Publics' Emotional Response: Anxiety as Default Emotion and New Variations of Emotions

Across the four quadrants and 14 cases, evidence suggests strong merit that anxiety is the default emotion in most, if not all, crises posited in the model, as the primary level emotion which the publics experience in the immediate instance. Anxiety could even be argued as the default dominant emotion.

Quadrant 1. In crises that require high organization engagement, and conative coping by the publics, the ICM model had posited the existence of two emotions: anger as the primary-level emotion and anxiety as the secondary-level emotion. Our findings showed that anger and anxiety were evident in three of the five cases in this quadrant. Of the three, two showed that it was associated or coexisted with the other. Of the two emotions posited, anxiety was evident in all the cases studied, mostly as primary-level emotion; anger was present in three of the five cases, either as primary or secondary level emotions. Another emotion, which we had posited in another quadrant, sadness, was evident in two of the five cases. Evidence suggests strong merit in the existence of three variants of emotions, instead of two, in this quadrant.

Quadrant 2. In crises that require high organization engagement and cognitive coping by the publics, the ICM model had posited sadness as the primary level emotion and fright as the secondary level emotion. There is insufficient evidence to conclude if sadness or fright should be the next dominant emotion. At best, we could argue that evidence suggested some merit that sadness, anger, and fright coexist as next-level emotions.

Quadrant 3. In crises that require low organization engagement and cognitive coping by the publics, the ICM model had posited fright as the dominant emotion and sadness as the secondary-level emotion. Fright was the next level emotion followed by traces of sadness and anger. At best, we could argue that evidence suggested some merit that fright and anger co-exist as the next level emotions.

Quadrant 4. In crises that require low organization engagement and conative coping by the publics, the ICM model had posited anxiety as the primary-level emotion and anger as the secondary-level emotion. Our findings showed anxiety as the dominant emotion, followed by different variations of anger, which was posited, and sadness, which was not posited. The emotion of fright, which was not posited, was found to be present.

Publics' Coping Strategy: Cognitive Processing Vs. Conative Manifestations

Evidence suggests strong merit that publics in crises engage in manifest conative coping. Cognitive coping remains latent.

Quadrant 1. In this quadrant, the ICM model had posited that the publics engage more in conative than cognitive coping. Findings showed that in four of the five cases, the publics engaged in conative coping and were willingness to take action to manage their perception of the crisis situation. Consequently, findings also showed that because they were willing to take proactive steps, these publics expected the organizations to do likewise and similarly engage in conative coping strategies to deal with the crises. Evidence thus suggests strong merit in the publics engaging in conative coping.

Quadrant 2. The ICM model had posited that the publics engage more in cognitive coping. Findings showed there were no significant differences in the coping strategies used. Evidence suggests some merit that publics engage in conative rather than cognitive coping.

Quadrant 3. The ICM model had posited that the publics engage in cognitive coping. Findings showed there were no significant differences in the coping strategies used. Evidence suggests some merit that publics engage in conative rather than cognitive coping.

Quadrant 4. The ICM model had posited that the publics engage in conative coping. Findings, however, showed that the publics engage in cognitive, rather than conative, coping. The collective evidence of publics engaging in cognitive coping in this quadrant have persuaded us to argue that cognitive coping still exists, as posited in the model, despite the lack of evidence in quadrants one to three.

The question remains, how does one make sense of the data and explain the interaction between cognitive and conative coping? Three conjectures are proffered. First, even though assiduous attention was paid to capturing cognitive coping in content analysis of news coverage, measured by the extent to which the publics were addressing or readdressing their perspective of the crises from news reports, it appears that the methodological limitations could have limited the emergence of such a theme. During a crisis, action-oriented stories, or conative-based strategies in ICM terminology, are often preferred, and recorded, in place of stories that investigated into the psyche and thought processes of publics in most media reports. Second, based on this argument, it is conceivable that most of the conative coping mechanisms that have been captured

were the culmination of the internal processing that had taken place (cognitive), leading the publics to take action to deal with the crises (conative). Evidently, the active conative coping displayed is thus the outcome of cognitive processing that had taken place, which was not captured in news reports. Third, if indeed this is the case, it is also conceivable to argue that cognitive coping takes place first before conative coping. One sorts out and makes sense of the uncertainty of crisis within oneself first before one takes action to deal with the situation. This is probably how human beings work when dealing with personal crises like a broken relationship. Denial, anger, sense of loss, and isolation are all emotions that take place within oneself first before one takes steps to manage the grief, either through the setting up of new routines, making new friends, embarking on a new lifestyle, or even moving to a new town. Therefore, we argue that evidence suggests strong merit that conative coping is the external manifestation of the internal cognitive processing that has already taken place. The issue then is not a question of the presence of conative versus the absence of cognitive coping. Instead, we argue that cognitive coping is the antecedent of conative coping.

Organization Engagement: Variance in Organization Engagement

Quadrant 1. Although we had posited in our model that organizations should be highly engaged, findings showed otherwise. In all of the five cases studied, the organizations maintained that the crises did not relate or affect their operations or reputations; they did not think they were fully responsible for the crises, and they engaged in a neutral stance with regards to dealing or resolving the crises. These appeared to dovetail with the publics' perception of organization engagement. In three of the five cases studied, the publics shared similar perceptions with the organizations regarding the level of engagement of the organization. Only in two of the five cases did the publics desire the organizations to do more. Evidence thus suggests strong merit that organizations embroiled in these crises need not be highly engaged. A moderate level of engagement appeared to suffice, based on the evidence.

Quadrant 2. The ICM model had posited that organizations need to be highly engaged. Evidence found some merit that organizations battling the crises posited here should be highly engaged. Even though, in two of the three crises, organizations examined considered the crises they faced somewhat related to their goals; and in all the three crises, they did not regard the crises as having massive impacts on their reputations; and only in one of the three crises did the organization admit responsibility for the crisis. The perceptions of the publics showed otherwise. In two of the three cases there, the publics either perceived the organization's goals as more relevant to the crisis than the organization perceived or the publics perceived the organization should assume higher crisis responsibility than the organization perceived.

Quadrant 3. The ICM model had posited that organizations need not be highly engaged. Evidence offered minimal support that organizations here need to increase its level of engagement. In two of three cases, organizations battling the crises in this quadrant felt that the crises were related to their organizational goals, but did not regard the crises as having any impact on their reputations, and that they did not admit responsibility for the crises. As far as the publics were concerned, there were no significant differences in the perception of organization engagement between the organizations and their publics in two of the three cases. The publics did perceive, in one of the three cases, that the organizations should assume higher responsibility than

the organizations had appraised themselves, but there was insufficient evidence to recommend increased engagement by the organizations.

Quadrant 4. The ICM model had posited that organizations need not be highly engaged. Evidence found some merit that organizations battling the crises posited here should be more engaged with publics. Evidence suggested strong merit that organizations examined considered the crises they faced relevant to their organizational goals but they did not regard the crises as having massive impacts on their operations. They also denied responsibility for the crises. The perceptions of the publics, however, showed otherwise. In two of the three cases, the publics perceived the organizations' goals as relevant to the crises than the organization perceived. Similarly, the publics also perceived the organizations should assume higher crisis responsibility than the organizations perceived.

Thus, although both the publics and the organizations agreed that the crises were relevant to the organizations' goals, they differed on who should assume more responsibility. Organizations often fear assuming responsibility because, as Benoit (2004) argued, this would exacerbate legal liabilities. Instead, organizations could still reach out to publics if they were seen to be more engaged in these crises regardless of whether they felt they were responsible for the crises. This is because, as Coombs (2007) argued, crisis is perceptual. If this ''threatens the expectancies of the stakeholders'' (p. 3), it invariably would impact how the publics regard the organization in the long run. Benoit and Pang (2008) argued that as long as the audience thinks the firm is at fault, organizational image is at risk.

CONCLUSION AND LIMITATIONS

This study represents a multistage testing to investigate the viability of the ICM model by integrating crisis perspectives with psychological analyses, which allows us to generate what Yin (2003) termed ''analytic generalization'' (p. 33). Analytic generalization is achieved by testing empirically a theoretical model to enhance its potency and rigor. Analytic generalization, or what Bennett (2004) called ''theory confirming and infirming'' (p. 22), is achieved when ''two or more cases'' support the theoretical assertions (Yin, 2003, p. 33). Although much of what the authors have been studying is still exploratory, findings suggested theoretical rigor in the model with room for further refinements.

Admittedly, one limitation of this study is that the analyses are all based on media reports. First, given the small number of articles that were relevant and available through online database, we acknowledge it raises questions about validity and the stories' representativeness of the case. We also realize that the statistical power of detecting associations among the coding variables could be restricted. The stories themselves do not represent the entire crisis case (we never intended it to be). Instead, we argue that our findings provide valuable insights to how the model works and where it falls short. We concede that triangulation of media reports and first ethnographic studies of both the organizations and publics, for instance, would help shed more light. However, given the exploratory nature of the research, we argue it is a limitation we have to accept.

Second, this study excluded media releases and letters or opinion section of newspapers that might have provided valuable information on the organization's crisis strategies, as well as the publics' expression of emotions. Further research could first, use more in-depth case analysis

approach to examine how the individual crisis evolved, what was the level of organization engagement, and how the publics respond emotionally. Future research could also include examination of messages disseminated through media releases, as well as interviews with practitioners and focus groups with publics involved in the respective crises. Analysis could dive into analyzing emotional expressions. These emotions could then be validated and triangulated through interviews and experiments so as validate the publics' affective responses in a given crisis situation. We plan to follow up on this research by not only testing the ICM model by examining other mediums (broadcast, YouTube, and other social media platforms), but also triangulating the findings of our case analyses using experimental designs, in-depth interviews and surveys.

Third, our reliance on content analysis of media reports that are filtered through the eyes of journalists who may frame issues according to their perceptions of what had happened. In this regard, we argue that, due to the rapidity, abruptness, and volatility in each of the crises, and the exigency and imperativeness for organizations to respond to the crisis, analysis of news coverage would provide an expeditious and fair representation of what had happened since our studies centered on the height of the crisis, i.e., the first month(s) of the crisis. Studying news coverage is one way to capture the unfolding drama of the crises (Kaid, 1996). Indeed, previous works analyzing crises through media coverage had proved insightful (for instance, see Jin et al., 2006; Meng & Berger, 2008; Reber, Cropp, & Cameron, 2003; Shin et al., 2005). Even though there may have been elements of bias and subjectivity in some of these news reports, we believe that examining prestige newspapers would project a fair representation of what had happened (Krippendorf, 2004; Riffe, Lacy, & Fico, 1998). For instance, Carey (2003), in analyzing the uses of media in reporting the 9/11 crisis, had described media reportage of the crisis as ''robust'' (p. 6). Our rationale is that with every quick turn of events during the crisis, the media, particularly the prestige newspapers, would be at the forefront of reporting the crisis. Noll (2003) argued that media content may be studied to ''verify assumptions of content'' (p. xviii), and we argue that, in our verification of content, we had examined beyond media framing to distilling in its fundamental forms the key ingredients in each crisis with the primary goal of shedding light on our model, not to prove or disprove media biases. Besides, any potential media bias would have been detected and accounted for by analyzing data from not one, but five, newspapers. Our intention was not just to capture the rapidly unfolding communication between the organizations and their publics as enumerated in documents of public record; we humbly submit that the ongoing public discourse would reflect, to a large extent, an accurate and present reading of the reality. Even with the inherent methodological limitations, these limitations should not invalidate our findings.

Another limitation lies in the reliance on keywords searches in online databases, which might have encountered ''wire-service blind spots'' in news archives (Weaver & Bimber¸2008, p. 515), which limited the number of relevant news stories that could have been included and analyzed. For example, as Weaver and Bimber (2008) found, ''inter-database agreement between Google News and LexisNexis ranged from 29% to 83%'' (p. 515) comparing story searches among eight large-circulation US newspapers, which might result in ''much of the discrepancy due to wire service exclusions: LexisNexis missed half or more of stories appearing in major papers and in broad searches of English-language news because it is blind to wire stories'' (p. 515). This is another limitation we accept.

Limitations aside, what are the bigger implications and insights this model avail to practitioners? We suggest three. First, organizations should incorporate strategies to manage the likely

emotions publics may face even before the crisis happens, in the strategic phase where issues needed to be managed. Wilcox and Cameron (2009) argued that a crisis life cycle undergoes four phases, proactive, strategic, reactive and recovery stages. Issues management is in the strategic phase, before crisis hits in the reactive phase. Issues management has largely focused on the threats identified and tasks at hand, but little on the emotions of the publics. Emotions of the publics ought to be factored into practitioners' considerations. Second, even though evidence suggests publics take active steps to manage the crisis, or conative coping, organizations may consider making available resources for the publics to manage their situations better. For laid-off workers who are likely to feel anxious for the future, for instance, organizations can hire a recruitment agency to explore other employment possibilities. This will aid in the conative coping process. Third, organizations have been known to be careful or slow in assuming responsibility. Where culpability is clear, organizations should have the courage to do what is morally right, to admit fault and promise to correct the mistake (Benoit, 2004). When the organization tells the truth, publics are likely to forgive (Wharton & Peltz, 2009).

Last, it is our thesis that studies analyzing emotions in crises should increasingly dominate crisis scholarship for the simple argument that organizational strategies would be ineffectual if these do not appeal to the hearts and minds of the publics the organizations are trying to reach. Our emotion-based conceptualization is positioned as a nascent attempt to understand crisis from the perspectives of the publics so that organizational strategies and responses can be more appropriately targeted and honed. Both organizations and their publics respond not only intellectually, but emotionally, to the events around them that shape the reputation and future of their own lives to a greater or a lesser extent. In addition, emotions other than anger, sadness, frights, and anxiety should be further explored to help researchers and practitioners fully understand the hearts of the publics in crises.

Much work remains to be done. The findings from this study represent the imprints of an initial trail that may open up to a possibly new vista of research, with the potential of transforming the landscape of studies of crisis communication.

REFERENCES

Audit Bureau of Circulations. (2006). Retrieved from http://www.accessabc.com/reader/top150.htm.

Barringer, F., & Goodman, B. (2006, January 6). Coal miners' notes of goodbye, and questions on a blast's cause. *The New York Times*, p. 1.

Bennett, A. (2004). Case study methods: Design, use and comparative advantage. In D. F. Sprinz & Y. Wolinsky-Nahmias (Eds.), *Models, numbers, and cases: Methods for studying international relations* (pp. 19–55). Ann Arbor, MI: University of Michigan Press.

Benoit, W. L. (2004). Image restoration discourse and crisis communication. In Dan P. Millar & Robert L. Heath (Eds.), *Responding to crisis: A rhetorical approach to crisis communication* (pp. 263–280). Mahwah, NJ: Lawrence Erlbaum Associates.

Benoit, W. L., & Pang, A. (2008). Crisis communication and image repair discourse. In T. Hansen-Horn & B. Neff (Eds.), *Public relations: From theory to practice* (pp. 244–261). Boston, MA: Pearson Allyn & Bacon.

Broom, G. M. (2009). *Effective Public Relations* (10th ed.). Upper Saddle River, NJ: Prentice Hall.

Carver, C. S., & Blaney, P. (1977). Perceived arousal, focus of attention, and avoidance behavior. *Journal of Abnormal Psychology*, *86*, 154–162.

Carey, J. (2003). The functions and uses of media during the September 11 crisis and its aftermath. In A. Michael Noll (Ed.), *Crisis communications: Lessons from September 11* (pp. 1–16). Oxford, UK: Rowman & Littlefield Publishers.

Coombs, W. T. (2006a). Crisis management: A communicative approach. In C. H. Botan & V. Hazleton (Eds.), *Public relations theory II* (pp. 171–197). Mahwah, NJ: Lawrence Erlbaum Associates.

Coombs, W. T. (2006b). The protective powers of crisis response strategies: Managing reputational assets during a crisis. *Journal of Promotion Management*, *12*, 241–260.

Coombs, W. T. (2007). *Ongoing crisis communication* (2nd ed). Thousand Oaks, CA: Sage.

Dao, J., & Barringer, F. (2006, January 7). Went by book, but time and air ran out. *New York Times*, p. 1.

Eggen, D. (2007, March 24). Gonzales met with top aides on firings. *The Washington Post*. Retrieved from: http://www.washingtonpost.com/wp-dyn/content/article/2007/03/23/AR2007032301396.html

Fearn-Banks, K. (2001). Crisis communication: A review of some best practices. In R. L. Heath & Gabriel Vasquez (Eds.). *Handbook of public relations* (pp. 479–485). Thousand Oaks, CA: Sage.

Fearn-Banks, K. (2002). *Crisis communications: A casebook approach*. Mahwah, NJ: Lawrence Erlbaum Associates.

Gonzalez-Herrero, A., & Pratt, C. B. (1996). An integrated symmetrical model for crisis-communications management. *Journal of Public Relations Research*, *8*, 79–105.

Granelli, J. S. (2006, Sep 22). HP's CEO offers to testify to Congress about spying scandal'', *Los Angeles Times*, Part C, p. 1.

Gummesson, E. (2000). *Qualitative methods in management research* (2nd ed.). Thousand Oaks, CA: Sage.

Harris, G. (2006, January 11). Miners tried escape by rail car, family says. *New York Times*, p. 18.

HP exec seeks to mend fences. (2006, Sep 9). *Los Angeles Times*, Part C. p. 2.

HP won't renominate director, citing leaks. (2006, Sep 6). *Los Angeles Times*, p. 2.

Jin, Y., & Pang, A. (2010). Future directions of crisis communication research: Emotions in crisis—The next frontier. In W. T. Coombs & S. J. Holladay (Eds.), *Handbook of crisis communication* (pp. 677–682). Malden, MA: Wiley-Blackwell.

Jin, Y., Pang, A., & Cameron, G. T. (2007). Integrated crisis mapping: Towards a publics-based, emotion-driven conceptualization in crisis communication. *Sphera Publica*, *7*, 81–96.

Kaid, L. L. (1996). Political communication. In M. B. Salwen & D. W. Stacks (Eds), *An integrated approach to communication theory and research* (pp. 443–456). Mahwah, NJ: Lawrence Erlbaum Associates.

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage.

Lazarus, Richard S. (1991). *Emotion and adaption*. New York, NY: Oxford University Press.

Lukaszweski, J. E. (1997). Establishing individual and corporate crisis communication standards: The principles and tools. *Public Relations Quarterly*, *42*, 7–15.

Massey, J. E. (2001). Managing organizational legitimacy: Communication strategies for organizations in crisis. *Journal of Business Communication*, *38*, 153–182.

Meng, J., & Berger, B. K. (2008). Comprehensive dimensions of government intervention in crisis management: A qualitative content analysis of news coverage of the 2003 SARS epidemic in China. *China Media Research*, *4*, 19–28.

''Nation in brief'' (2006, December 8) *The Washington Post*, p. A16.

Noll, A. M. (2003). *Crisis communications: Lessons from September 11* (pp. 1–16). Oxford, UK: Rowman & Littlefield Publishers.

O'Dell, J. (2006, Sep 15). Ford to offer buyouts to factory workers. *Los Angeles Times*, Part C, p. 1.

Ogrizek, M., & Guillery, J. M. (1999). *Communicating in crisis*. New York, NY: Aldine De Gruyter.

Ray, S. J. (1999). *Strategic communication in crisis management*. Westport, CT: Quorum.

Rawlins, B. L. (2006). *Prioritizing stakeholders for public relations*. Retrieved from http://www.instituteforpr.org/research_single/prioritizing_stakeholders/.

Reber, B. H., Cropp, F., & Cameron, G. T. (2003). Impossible odds: Contributions of legal counsel and public relations practitioners in a hostile bid for Conrail Inc. by Norfolk Southern Corporation. *Journal of Public Relations Research*, *15*, 1–25.

Riffe, D., Lacy, S., & Fico, F. G. (1998). *Analyzing media messages*. Mahwah, NJ: Lawrence Erlbaum Associates.

Saunders, M. D. (2004). Patterns of conflict preceding a crisis: A case study analysis. In D. P. Millar & R. L. Heath (Eds.), *Responding to crisis: A rhetorical approach to crisis communication* (pp. 139–148). Mahwah, NJ: Lawrence Erlbaum Associates.

Shin, J., Cheng, I., Jin, Y., & Cameron, G. T. (2005). Going head to head: Content analysis of high profile conflicts as played out in the press. *Public Relations Review*, *31*, 399–406.

Stake, R. E. (1998). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Strategies of qualitative inquiry* (pp. 86–109). Thousand Oaks, CA: Sage.

Stocker, K. P. (1997). A strategic approach to crisis management. In C. L. Caywood (Ed), *The handbook of strategic public relations and integrated communications* (pp. 189–203). New York, NY: McGraw-Hill.
Turner, M. M. (2007). Using emotion in risk communication: The Anger Activism Model. *Public Relations Review*, *33*, 114–119.
Ulmer, R. R. (2001). Effective crisis management through established stakeholder relationships. *Management Communication Quarterly*, *14*, 590–615.
Ulmer, R. R., Sellnow, T. L., & Seeger, M. W. (2007). *Effective crisis communication*. Thousand Oaks, CA: Sage.
Viguerie, R. A., & Franke, D. (2004). *America's right turn*. Chicago, IL: Bonus Books.
Weaver, D. A., & Bimber, B. (2008). Finding news stories: A comparison of searches using LexisNexis and Google News. *Journalism & Mass Communication Quarterly*, *85*, 515–530.
Wharton, D., & Peltz, J. (2009, Dec 2). Tiger flops PR 101. *My Paper*, p. 1, A18.
Wilcox, D. L., & Cameron, G. T. (2009). *Public relations: Strategies and tactics*. Boston, MA: Allyn & Bacon.
Yin, R. K. (1993). *Applications of case study research*. Newbury Park, CA: Sage.
Yin, R. K. (2003). *Case study research (3rd ed.)*. Thousand Oaks, CA: Sage.

APPENDIX A: SUMMARY OF CRISIS CASES SELECTED FOR CRISIS TYPES MAPPED IN ICM

Quadrant 1

Hewlett Packard case. This is an example of reputational crisis. HP's internal leak crisis became public September 6, 2006 when the company filed documents with the Securities and Exchange Commission. Media coverage on the leak investigation lasted for months, but the articles analyzed focused on coverage until September 22, 2006, the day that the chairwoman of the board Patricia Dunn resigned.

Story Collection: The population of HP news stories were obtained from September 6 to 22, 2006. News stories were uploaded from Lexis-Nexis by typing in the keywords (*HP, H-P*, and *Hewlett Packard*). Stories that were relevant to the crisis were eventually filtered to 82.

Dell case. This is an example of technology breakdown. The crisis surrounding Dell's battery recall began on August 14, 2006 with the organization's official announcement of the recall. The recall was voluntary and lasted until September 29, 2006 when the company announced an update on the situation. The majority of news coverage occurred during the first 2 weeks of the recall.

Story Collection: The population of Dell news stories were obtained from August 14 to September 30, 2006, from the first official communication by Dell to one day after the last release on the topic by Dell. News stories were uploaded from Lexis-Nexis by typing in the keywords (*Dell* and *battery*). Stories that were relevant to the crisis were eventually filtered to 20.

Sago mining case. This is an example of industrial matters. Media coverage of the Sago Mining accident began on January 4, 2005 with the statement given by the mine's owner ICG Group Inc. The bulk of media coverage occurred from January 6 to 13, 2006.

Story Collection: The population of stories was accessed from January 4 to February 1, 2006, from the first official announcement from ICG to the last official statement by ICG on the crisis. News stories were uploaded from Lexis-Nexis by typing in the keywords (*Sago mine* and *ICG*). Stories

that were relevant to the crisis were eventually filtered to 27.

Ford case. This is an example of labor unrest/protest. Media coverage of the Ford job cutback crisis began on May 11, 2006, as newspapers reported on the mounting struggle of American automobile producers to keep pace with foreign competitors. Coverage intensified in August and September, following Ford's announcements that it would implement massive production cuts and manufacturing plant closings, as well as the buyout or layoff of tens of thousands of workers, as part of a massive corporate restructuring plan.

Story Collection: The population of Ford news stories were obtained from May 10 to September 20, 2006. The news stories were uploaded from Lexis-Nexis by typing in the keywords (*Ford* and *jobs*). Stories that were relevant to the crisis were eventually filtered to 69.

Military Commissions Act 2006. This is an example of regulation/deregulation. The Central Intelligence Agency's crisis regarding the treatment of suspected terrorist conspirators imprisoned at Guantanamo Bay, Cuba, began on July 12, 2006. Responding to allegations of physical torture and unethical interrogation of detainees, American media questioned whether the constitutional rights of prisoners should be extended to alleged terrorists held abroad. President Bush and his administration acknowledged the existence of secret CIA prisons hosted by foreign governments, but declined to confirm the exact locations of these facilities.

Story Collection: The population of CIA releases and news stories were searched from July 12 to November 4, 2006. News stories were uploaded from Lexis-Nexis by typing in the keywords (*CIA* and *Guantanamo*) and stories that were relevant to the crisis were eventually filtered to 61.

Quadrant 2

US Airways' takeover bid of Delta Air Lines. This is an example of an economic/hostile takeover. In an effort to become the largest airline in the world, US Airways made an audacious US$8.5 billion bid for the Delta Air Lines in November 2006, even though Delta had rebuffed earlier advances a few months earlier in the summer. Undeterred, US Airways, which operates a vast network of both international and domestic routes, this time made an unsolicited offer to the creditors of Delta, which was operating under bankruptcy protection. Delta was the fourth-largest domestic airline in the United States. US Airways took the hostile takeover further by presenting its case to the Delta creditors even as Delta was trying to shore up support from its creditors that it would emerge from the bankruptcy protection as stand-alone company. The battle, however, did not last for long. US Airways withdrew its improved US$10.2 billion offer after it failed to win the support of Delta creditors, which included the Boeing Company and the federal pension agency, in January 2007.

Story Collection: The population of stories about this hostile takeover were obtained from November 2006 to January 2007. News stories were uploaded from Lexis-Nexis by typing in the keywords (*US Airways, Delta Air Lines*, and *takeover*). Stories that were relevant to the crisis were eventually filtered to 20.

Ameren deals with power outages. This is an example of an organization dealing with crisis as a result of natural disaster. Thousands of residents in Missouri and Illinois went without power for nearly a week in the cold of the winter after a nasty storm plowed through the Midwest in early December 2006. At least 19 deaths were blamed on the storm. However, it was the St. Louis-based Ameren Corp's dealing of this natural disaster that came under scrutiny. Missouri Governor Matt Blunt described Ameren's handling of the crisis as ''unacceptable.'' ''Missourians expect and should receive reliable service from their utility companies,'' he said (''Nation in brief,'' 2006). Illinois Lieutenant Governor Pat Quinn called for utility regulators to investigate into the lingering power disruptions. Despite Ameren's insistence that it had poured every available resource into rectifying the power outage, residents remained outraged.

Story Collection: The population of stories about the handling of this natural disaster were obtained from coverage in December 2006, and uploaded from Lexis-Nexis by typing in the keywords (*power outage, storms*, and *Ameren*). Stories that were relevant to the crisis were eventually filtered to 14.

BP refinery blast. This is an example of an accident. On March 23, 2005, a powerful explosion rocked BP's refining complex in Texas City, Texas, about 35 miles southeast of downtown Houston, injuring more than 100 people and killing 15 people. The blast occurred on the western side of the sprawling 1,200-acre complex in one of the units used to make high-grade fuels. According to a BP report, operators overfilled and overheated a processing tower at a unit that housed hydrocarbon liquid and vapor. The liquid and vapor mix overpressurized, flooded into an adjacent stack, and escaped into the atmosphere. The resulting vapor cloud was ignited by an unknown source. The report added that it was human error. BP quickly admitted fault for the blast.

Story Collection: The population of stories about this blast were obtained from coverage in March 2005, and uploaded from Lexis-Nexis by typing in the keywords (*BP, refinery, explosion*, and *blast*). Stories that were relevant to the crisis were eventually filtered to 18.

Quadrant 3

Virginia Tech shooting. This is an example of a psychopathic act/terrorism. In what was described as the deadliest shooting rampage in American history, a gunman, Seung-Hui Cho, embarked on two shooting attacks at Virginia Tech University in April 2007, killing 32 and injuring at least 15. There was a 2-hr gap between the first shootings, when two people were killed, and the second, when Cho stalked through the halls of an engineering building across campus, shooting at professors and students in classrooms and hallways, firing dozens of rounds. Cho, described as a loner, filmed himself in-between the attacks. In a video sent to NBC and later broadcast, Cho vented his hatred of other students and his grandiose self-view. He killed himself after the second attack.

Story Collection: The population of stories about this psychopathic act were obtained from coverage in April 2007, and uploaded from Lexis-Nexis by typing in the keywords (*Virginia Tech* and *gunman*). Stories that were relevant to the crisis were eventually filtered to 16.

Rumors of Gonzales resignation. This is an example of crisis generated by rumor. Former US Attorney-General Alberto R. Gonzales' troubles intensified from March 2007 when questions were asked of the Justice Department surrounding the ouster of eight United States attorneys and the Federal Bureau of Investigation's use of expanded surveillance powers to improperly obtain personal records of citizens. A leading Democrat, Senator Charles E. Schumer, Democrat of New York, began to call for his resignation. Gonzales initially responded by claiming he was ''not involved in any discussions about what was going on,'' only to concede later at a Senate hearing that he knew about them, although he did not select any of the prosecutors slated for dismissal in 2006 (Eggen, 2007). He claimed he had delegated the effort to his former chief of staff, D. Kyle Sampson. From March to April, rumors were rife as to whether he would resign even as he was fighting hard to keep his job. Gonzales did resign after all, on August 27, 2007.

Story Collection: The population of stories about this rumor were obtained from March to August 2007, and uploaded from Lexis-Nexis by typing in the keywords (*Gonzales, attorney general, step down*, and *resign*). Stories that were relevant to the crisis were eventually filtered to 18.

Merck CEO retires. This is an example of a crisis generated as a result of CEO retirement. A popular pain and arthritis drug that was consumed by millions worldwide since it launched in 1999, Vioxx, which chalked up global sales amounting to US$2.5 billion in 2003 alone, was withdrawn from the market on September 30, 2004. Merck & Co, which manufactured the drug, withdrew it after a trial showed that those who took 25 mg of Vioxx daily for more than 18 months were twice as likely to suffer a heart attack or stroke as those on placebo. The withdrawal was described as the largest voluntary drug recall in history. Merck said the withdrawal was to protect patients from further risks. However, the onslaught of criticism from the medical fraternity, lawsuits by patients, and investigations by the Justice Department and the Securities and Exchange Commission, continued. In May 2005, CEO Raymond Gilmartin, who, by far, had been Merck's most prominent defender in the controversy, resigned abruptly. Merck said he retired.

Story Collection: The population of stories about Gilmartin's retirement were obtained from coverage from October 2004 to May 2005. News stories were uploaded from Lexis-Nexis by typing in the keywords (*Merck, Vioxx, CEO, retirement*, and *Gilmartin*). Stories that were relevant to the crisis were eventually filtered to 10.

Quadrant 4

T. J. MAXX case. This is an example of security issue. In Dec 18, 2006, apparel retailer discovered suspicious software on its computers and began investigation. Three days later, the company concluded that a breach had probably occurred and that the intruder was still on the system. The next day, it notified federal investigators. On Dec 27, the firm learned that customer data had been stolen, and it notified banks and check-processing companies. The extent of the intrusion was disclosed in March 2007. Hackers had swiped US$45.7 million of its credit and debit card transaction records.

Story Collection: The population of stories about this case were obtained from coverage from January 2007 to September 2008, and uploaded from Lexis-Nexis by typing in the keywords (*TJ MAXX, breach*, and *investigation*). Stories that were relevant to the crisis were eventually filtered to 25.

Wal-Mart case. This is an example of a human resource crisis. The case dates back to June 2001, when six former and current female Wal-Mart employees accused the retail giant of denying women equal pay and opportunities for promotion. On June 21, 2004, a federal judge in San Francisco ruled that the case could proceed as a class action. On February 6, 2007, a federal appeals court in San Francisco ruled that the case should proceed as a class action. Wal-Mart Stores Inc. lost a bid to have an appeals court reconsider its decision to allow 2 million current and former female workers to sue as a group with sex-bias claims.

Story Collection: The population of stories about this case were obtained from June 2001 to September 2008, and uploaded from Lexis-Nexis by typing in the keywords (*Wal-Mart, employee*, and *sex bias*). Stories that were relevant to the crisis were eventually filtered to 31.

Amtrak case. This is an example of transport failure. An Amtrak power outage during the busy morning commute disrupted all rail traffic between Washington and New York on May 25, 2006, stranding commuters on Amtrak and MARC train lines and causing a ripple of cancellations and delays throughout the morning. The power outage, which originated at a substation in Pennsylvania, began shortly after 8 a.m. and ended about 10:15 a.m.

Story Collection: The population of stories about this case were obtained from coverage from May 26, 2006 to Dec 31, 2006. Stories that were relevant to the crisis were eventually filtered to13 stories.

APPENDIX B
Primary Publics in Crisis News Across Integrated Crisis Mapping (ICM) Quadrant 1–4

ICM Quadrant 1	*ICM Quadrant 2*	*ICM Quadrant 3*	*ICM Quadrant 4*
HP Case	BP Case	Merck Case	TJ MAXX Case
Employees	Victims/Victims' families	Employees	TJX customers
Governmental agencies	Local community	Shareholders	Investigators (government investigation)
Shareholders	General public	Governmental officials	Thefts
Consumers	Governmental investigators	Industry analysts	Bank(er)/bank association
			Credit card companies (VISA or MasterCard)
			Regulators
			Security analyst/technicians/security & privacy experts
			State and federal authorities
			Activists' group (Nonprofit organization, privacy group)
			Other retailer industry groups
Sago Mine Case	US Airways Case	Virginia Tech Case	Wal-Mart Case
MSHA	Shareholders	Victims' families/friends	Women employees in general
Victim's families	Delta	Local community	Lawyers for women
City of Sago	Governmental regulators	Students/faculty	
	Other airline companies		
Dell Case	Ameren Case	AG Gonzales Case	Amtrak Case
Consumers	Customers	Senators/representatives	The director/ spokesperson of New Jersey Transit
Shareholders	Victims	Senate committee	State Senate committee/government
Consumer Product Safety Commission	Local communities	Federal prosecutors	Passengers/commuter/riders
Ford Case			Utility spokesman
Shareholders			Technicians/ Amtrak engineers
Employees			Community
United Auto Workers Union			
Mexican government			
Auto consumers			
CIA Case			
Journalists/Media			
Congress and US government officials			
Legal system/courts			
American citizens			
International bodies (Red Cross, UN, etc.)			
Foreign governments			